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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GREY, CHRISTOPHER P

ART UNIT PAPER NUMBER

2616

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,922

Applicant(s)

TAKASAKI, YOSHINORI

Examiner

Christopher P Grey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata et al. (US 6269083) in view of Shimada (US 2002/0021670)

Claim 1, 5 Nagata et al. (Nagata 'hereinafter') discloses an ATM network communication route monitoring system.

Nagata discloses a first and second (plurality) OAM loopback cell delivering means (OAM cell handlers) as disclosed in Fig 1 and Col 4 lines 51-67.

Nagata also discloses within a communication path an end point/ ATM terminal point (Trunks) as disclosed in Col 6 lines 39-46.

Nagata discloses an OAM cell transmission control unit that transmits a OAM cell transmission request (OAM send cell instruction) as disclosed in Col 12 lines 35-52.

Nagata also discloses an OAM cell transmission control unit that controls the OAM cell transmitter to transmit the OAM loopback cell to the path route (Col 6 lines 39-46).

Nagata discloses determining a fault based on the returning of the OAM cell (Col 16 line 62- Col 17 line 20).

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Nagata discloses first and second returning and relaying means (see fig 1) and confirming a virtual path and virtual connection route (Col 1 lines 5-15), however does not disclose virtual path handlers and virtual channel handlers.

Shimada discloses a node within an ATM network (page 2 paragraph 0034) which is supplied with a succession of monitoring objects (object unit) which is a succession of virtual path (virtual path handler) and virtual channels (virtual channel handler) as disclosed on page 2 paragraph [0037].

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify each exchange (fig 2) as disclosed by Nagata, with the monitoring objects of VC's and VP's as disclosed by Shimada. The motivation for this modification is to carry out performance monitoring (page 2 paragraph 0037) on VP's and VC's in order to detect a fault and switch a virtual path where necessary (page 1 paragraph 0001).

Claim 2 Nagata discloses detecting a fault, however does not disclose a switching operation from the virtual path handler.

Shimada discloses switching apparatus for switching virtual paths (page 1 paragraph 0001). Shimada discloses a VP monitoring section (virtual path handler) that detects a fault (page 4 paragraph 0071) and produces a new transmission path band (page 4 paragraph 0083).

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine with the detection of a fault as disclosed by Nagata, the switching of the virtual path in the event of a detected fault as disclosed by Shimada.

The motivation for this combination is to obtain a high reliability for the ATM network (page 1 paragraph 0001).

Claim 3 Nagata discloses a communication route monitoring system within an ATM network, however does not specifically disclose the components discussed within the rejection of the previous claims within an ATM switching apparatus.

Sagata discloses an ATM signal switching apparatus (Page 1 paragraph 0001). It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the teachings of Nagata with the ATM switching apparatus as disclosed by Shimada. The motivation for this combination is to obtain high reliability for the ATM network formed by the signal switching apparatus (page 1 paragraph 0001).

Claim 4 Nagata discloses an OAM cell transmission request (OAM sell send instruction) being triggered by maintenance information (Col 12 lines 35-52), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that adequate maintenance requires periodic updates/maintenance.

Claim 6 Nagata discloses an OAM cell transmission control unit that transmits (issues) an OAM cell transmission request (OAM send cell instruction) as disclosed in Col 12 lines 35-52.

Nagata also discloses an OAM cell transmission control unit that controls the OAM cell transmitter to transmit the OAM loopback cell to the path route (Col 6 lines 39-46).

Nagata discloses a controller coupled to the control unit for determining a fault based on the returning of the OAM cell (Col 16 line 62- Col 17 line 20).

Nagata discloses a second OAM loopback cell delivering means (OAM cell handler) being enabled (changed) to deliver a second OAM loopback cell (Col 5 lines 44-50).

Claim 7, 12 Nagata et al. (Nagata 'hereinafter') discloses an ATM network communication route monitoring system.

Nagata discloses an OAM cell transmission control unit that transmits an OAM cell transmission request (OAM send cell instruction). Nagata also discloses the transmission control unit controlling the OAM transmitter (OCH handler) as disclosed in Col 12 lines 35-52.

Nagata also discloses an OAM cell transmission control unit that controls the OAM cell transmitter to transmit the OAM loopback cell to the path route (Col 6 lines 39-46) in response to the OAM cell transmission request. Nagata also discloses loopback control at an end point/ ATM terminal point (Trunks) as disclosed in Col 6 lines 39-46.

Nagata discloses determining a fault based on the returning of the OAM cell (Col 16 line 62- Col 17 line 20).

Nagata discloses first and second returning and relaying means (see fig 1) and confirming a virtual path and virtual connection route (Col 1 lines 5-15), however does not disclose carrying out loopback control to virtual path handlers and virtual channel handlers.

Shimada discloses a node within an ATM network (page 2 paragraph 0034) which is supplied with a succession of monitoring objects (object unit) which is a

succession of virtual path (virtual path handler) and virtual channels (virtual channel handler) as disclosed on page 2 paragraph [0037].

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify each exchange (fig 2) conducting loopback OAM cell transmission as disclosed by Nagata, with the monitoring objects of VC's and VP's as disclosed by Shimada. The motivation for this modification is to carry out performance monitoring (page 2 paragraph 0037) on VP's and VC's in order to detect a fault and switch a virtual path where necessary (page 1 paragraph 0001).

Claim 8 Nagata discloses detecting a fault, however does not disclose a switching operation for fault avoidance based on the determining of a fault position.

Shimada discloses switching apparatus for switching virtual paths (page 1 paragraph 0001). Shimada discloses a VP monitoring section (virtual path handler) that detects a fault (page 4 paragraph 0071) and produces a new transmission path band (page 4 paragraph 0083).

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine with the detection of a fault as disclosed by Nagata, the switching of the virtual path in the event of a detected fault as disclosed by Shimada. The motivation for this combination is to obtain a high reliability for the ATM network (page 1 paragraph 0001).

Claim 9, 10 Nagata discloses a communication route monitoring system within an ATM network, however does not specifically disclose the components of the object unit

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as discussed within the rejection of the previous claims within an ATM switching apparatus.

Sagata discloses an ATM signal switching apparatus (Page 1 paragraph 0001). It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the teachings of Nagata with the ATM switching apparatus as disclosed by Shimada. The motivation for this combination is to obtain high reliability for the ATM network formed by the signal switching apparatus (page 1 paragraph 0001).

Claim 11 Nagata discloses an OAM cell transmission request (OAM cell send instruction) being triggered by maintenance information (Col 12 lines 35-52), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that adequate maintenance requires periodic updates/maintenance.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Kim et al. (US 5974046) discloses within an ATM network a loopback OAM cell transmission and the detection of a fault. Kim et al. also discloses in the event of a fault performing VP switching.

(b) Moll et al. (EP 0777401 A1) discloses within an ATM network an OAM loopback test. Moll et al. also discloses monitoring the test cell to determine whether a fault has occurred.

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571)272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Grey
Examiner
Art Unit 2667

C. Grey
4/5/06


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